

 <p>United States Environmental Protection Agency Washington, DC 20460</p> <p>Interagency Agreement/ Amendment</p> <p>Part 1 - General Information</p>		1. EPA IA Identification Number DW-69-92312501 - 3		2. Funding Location by Region EPA R5					
		3. Other Agency IA ID Number (if known)		4. Awarding Office IASSC East					
		5. Type of Action Augmentation: Increase		6. IA Specialist: Lakeysha Hairston 202-564-5322 Hairston.Lakeysha@epa.gov					
7. Name and Address of EPA Organization US Environmental Protection Agency IASSC East 1200 Pennsylvania Avenue, NW Mail code 3903R Washington, DC 20460			8. Name and Address of Other Agency Department of Transportation Maritime Administration 1200 New Jersey Avenue, SE, W25-206 Washington, DC 20590						
9. DUNS: 029128894		10. BETC: DISB		11. DUNS: 928421726					
12. BETC: COLL		13. Project Title and Description Great Lakes Restoration Initiative (GLRI) Implementation - DOT-Maritime Administration To implement priority programs, project and activities of the Maritime Administration to protect, restore and maintain the Great Lakes ecosystem. Increase in funding; EPA Project officer change; Other agency name change for authorizing Official; extend project and budget periods							
14. EPA Project Officer (Name, Address, Telephone Number) Rajen Patel 77 West Jackson Blvd., G-17J Chicago, IL 60604-3507 312-886-5741 E-Mail: Patel.Rajen@epa.gov FAX:			15. Other Agency Project Officer (Name, Address, Telephone) Carolyn Junemann 1200 New Jersey Avenue, SE, W25-206 Washington, DC 20590 202-366-1920 E-Mail: carolyn.junemann@dot.gov FAX:						
16. Project Period: 02/24/2010 to 12/30/2014			17. Budget Period: 02/24/2010 to 12/30/2014						
18. Scope of Work (See Attachment) Revise Scope of Work attached.									
19. Employer/Tax ID No. 520852695		20. CAGE No: 347A4		21. ALC: 68-01-0727					
22. Statutory Authority for Transfer of Funds and Interagency Agreement Department of Defense and Full-Year Continuing Appropriations Act; 2011 (PL 112-10); Public Law 111-88; Department of Interior; Environment and Related Agencies Appropriations Act 2010					23. Other Agency Type Federal Agency				
24. Revise Reimbursable Funds and Direct Fund Cites (only complete if applicable)									
	Previous Funding	This Action	Amended Total						
Revise Reimbursable (in-house)			0						
Direct Fund Cite (contractor)			0						
Total			0						
Funds	Previous Amount	Amount This Action	Total Amount						
25. EPA Amount	\$6,694,600	\$2,446,927	\$9,141,527						
26. EPA In-Kind Amount			\$0						
27. Other Agency Amount			\$0						
28. Other Agency In-Kind Amount			\$0						
29. Total Project Cost	\$6,694,600	\$2,446,927	\$9,141,527						
30. Fiscal Information									
Treas. Symbol	DCN	FY	Appropriation	Budget Org	PRC	Object Class	Site/Project	Cost Org	Ob/De-Ob Amt
682/30108	1205HDX002	1213	B	05HS0	202BJ7XF2	2506			2,446,927
									2,446,927

Part II - Approved Budget				EPA IAG Identification Number DW-69-92312501 - 3
31. Budget Categories	Itemization of All Previous Actions	Itemization of This Action	In-Kind Itemization of This Action	Itemization of Total Project Cost to Date
(a) Personnel	\$0			\$0
(b) Fringe Benefits	\$0			\$0
(c) Travel	\$69,600	\$16,000		\$85,600
(d) Equipment	\$0			\$0
(e) Supplies	\$0			\$0
(f) Procurement / Assistance	\$6,625,000	\$2,430,927		\$9,055,927
(g) Construction	\$0			\$0
(h) Other	\$0			\$0
(i) Total Direct Charges	\$6,694,600	\$2,446,927	\$0	\$9,141,527
(j) Indirect Costs:	\$0	\$0	\$0	\$0
Charged - Amount Rate: % Base: \$ Not Charged: Funds-Out: Not charged by Other Agency Estimate by other Agency Amount \$				
(k) Total (EPA Share 100.00 %) (Other Agency Share 0.00 %)	\$6,694,600	\$2,446,927	\$0	\$9,141,527
32. How was the IDC Base calculated?				
33. Is equipment authorized to be furnished by EPA or leased, purchased, or rented with EPA funds? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Identify all equipment costing \$1,000 or more)				
34. Are any of these funds being used on extramural agreements? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Type of Extramural Agreement Cooperative Agreement				
Contractor/Recipient Name (if known)	Total Extramural Amount Under This Project		Percent Funded by EPA (if known)	
Northeast Midwest Institute	9055927 Total. \$ 9,055,927.00		100	
Part III - Funding Methods and Billing Instructions				
35.	(Note: EPA Agency Location Code (ALC) - 68010727)			
<input checked="" type="checkbox"/> Disbursement Agreement	Request for repayment of actual costs must be itemized on SF 1080 and submitted to the Financial Management Office, Cincinnati, OH 45268-7002:			
<input checked="" type="checkbox"/> Repayment	<input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Upon Completion of Work			
<input type="checkbox"/> Advance	Only available for use by Federal agencies on working capital fund or with appropriate justification of need for this type of payment method. Unexpended funds at completion of work will be returned to EPA. Quarterly cost reports will be forwarded to the Financial Management Center, EPA, Cincinnati, OH 45268-7002.			
<input type="checkbox"/> Allocation Transfer-Out	Used to transfer obligational authority or transfer of function between Federal agencies. Must receive prior approval by the Office of Comptroller, Budget Division, Budget Formulation and Control Branch, EPA Hdqtrs. Forward appropriate reports to the Financial Reports and Analysis Branch, Financial Management Division, PM-226F, EPA, Washington, DC 20460.			
36. <input type="checkbox"/> Reimbursement Agreement <input type="checkbox"/> Repayment <input type="checkbox"/> Advance				
<input type="checkbox"/> Allocation Transfer-In				
Other Agency's Billing Address (include ALC or Station Symbol Number)			Other Agency's Billing Instructions and Frequency	

Part IV - Acceptance Conditions

EPA Identification Number

DW-69-92312501 - 3

37. Terms and Conditions, when included, are located at the end of the 1610-1, or as an attachment.

Part V - Offer and Acceptance

Note: A) For Fund-out actions, the agreement/amendment must be signed by the other agency official in duplicate and one original returned to the Grants and IA Management Division for Headquarters agreements or to the appropriate EPA Regional IA administration office within 3 calendar weeks after receipt or within any extension of time that may be granted by EPA. The agreement/amendment must be forwarded to the address cited in item 29 after acceptance signature.

Failure to return the properly executed document within the prescribed time may result in the withdrawal of offer by EPA. Any change to the agreement/amendment by the other agency after the document is signed by the EPA Award Official, which the Award Official determines to materially alter the agreement/amendment, shall void the agreement/amendment.

B) For Funds-In actions, the other agency will initiate the action and forward two original agreements/amendments to the appropriate EPA program office for signature. The agreements/amendments will then be forwarded to the appropriate EPA IA administration office for signature on behalf of the EPA. EPA will return one original copy after acceptance returned to the other agency after acceptance.

EPA IA Administration Office (for administrative assistance)**EPA Program Office (for technical assistance)****38. Organization/Address****39. Organization/Address**

U.S. Environmental Protection Agency
IASSC East
1200 Pennsylvania Avenue, NW Mail code 3903R
Washington, DC 20460

US Environmental Protection Agency
R5 - Region 5
77 West Jackson Blvd., G-17J
Chicago, IL 60604-3507

Award Official on Behalf of the Environment Protection Agency

40. Digital signature applied by EPA Award Official | FOR Frank N. Roth - Chief Fellowship IA & SEE Branch
Michelle Messick - AO delegate

Date

04/23/2012

Authorizing Official on Behalf of the Other Agency**41. Signature****Typed Name and Title**

Date

James Lampert, Director of Budget

05/07/2012

Great Lakes Restoration Initiative

Interagency Agreement

Scope of Work

(IAA Modification)

AGENCY NAME: U.S. DOT Maritime Administration

CONTACT INFORMATION: Carolyn E. Junemann (202) 366-1920;
carolyn.junemann@dot.gov

1. INTRODUCTION

Since 2004, the only operative metrics for safe ballast water discharge are contained in the International Maritime Organization (IMO) Ballast Water Management Convention. The Convention includes guidelines for Administrations to follow in approving systems to meet the Regulation D-2 ballast water discharge standards. Under the Convention, Administrations will approve only ballast water treatment systems (BWTS) shown to meet the IMO standard in land-based and ship board contexts consistent with the loose IMO testing guidelines. The EPA and U.S. Coast Guard have developed approaches for further vetting of treatment systems, including the ETV guidelines and proposed Type Approval protocols at the bench, land-based and shipboard scales to meet pending (mid-2012) U.S. biological and environmental performance requirements.

GLRI funds to date (in support of the multi-year multi-agency action plan (2010-2014)) have supported verification of performance of IMO-approved BWTS and other promising treatment methods in controlled bench and land-based tests through the Great Ships Initiative (GSI). The modification of this IAA and revised SOW supports the long-term goals of the GLRWG and GSI. The long term goal of GSI is to end ship-mediated introductions of invasive species in the Great Lakes – St. Lawrence Seaway System. GSI testing has led to the credible performance evaluation in Great Lakes fresh water of numerous BWT processes. The results have been surprising; some IMO-approved BWTS proved ineffective in GSI tests, while other BWTS still in the R&D stage performed better than expected. In total, GSI completed tests on 11 different BWT processes in 2010-2011. GSI tested 5 of these processes at the bench scale, 7 at the land-based scale, and 1 at the ship-board scale during this period. Of these BWTS tested at GSI, GLRI supported tests of 7 of them, including the only three (3) which show likelihood of effectiveness in the shipboard context for purposes relevant to the Great Lakes, and elsewhere.

Work to be accomplished in FY12 builds on MARAD GLRI-supported GSI multi-year work to date in support of the multi-agency action plan (2010-2014) to provide highly credible fresh water performance data for possible use by the U.S. Coast Guard during the Type Approval process. At least three BWTS will be tested at the land-based scale in 2012 at GSI, and 4 at the bench scale. GSI also will undertake a shipboard test of a promising ballast water treatment system in the summers of 2012 and 2013. The testing aboard ship has a two-fold goal: to learn more about the treatment system operation, and to assist the U.S. Coast Guard and EPA with the development of an ETV shipboard testing protocol.

The overall purpose of the IAA between EPA and the Maritime Administration is to help implement the priorities of the GLRI. Specifically, this IAA will help implement priorities, programs, projects and activities to protect, restore and maintain the Great Lakes ecosystem. This IAA will also utilize MARAD to implement priorities, programs and projects of the Great Lakes Water Quality Agreement. The Great Lakes commercial shipping industry also benefits from this work by having access to information which will allow for informed system procurement decisions to be made.

2. BUDGET & PROJECT DETAIL

Focus Area	Project Title	Draft Allocation
IS	Verify and certify the performance ballast water treatment systems and other promising treatment methods in fresh water.	\$2,400,000
IS	Evaluate in-line ballast water discharge monitoring systems.	\$46,927
	Total Increase of FY12 GLRI Funding (Modification) to Existing IAA	\$2,446,927

3. NARRATIVE SCOPE OF WORK:

Title: Verification of Ballast Water Treatment System Performance (Template #2012-002)

Funding: \$2,400,000 (Note: This includes \$150,000 originally allocated to template #2012-335)

Authority: 31 U.S.C. § 1535(a) (3): MARAD is in a position to supply the services required.¹ 46 U.S.C. § 50105(a): MARAD is legally authorized to investigate new types of equipment for vessels. 46 U.S.C. § 50101: MARAD is legally authorized to aid the development of the U.S. merchant marine.

Work: MARAD proposes to verify and certify the effective performance in freshwater of International Maritime Organization-approved ballast water treatment systems and other promising treatment methods through both land-based and ship-board tests in the Great Lakes. This would build on efforts already undertaken by the Great Ships initiative, located in the Port of Superior, WI. The US Coast Guard and MARAD are coordinating activities in order to develop a collaborative approach to technology assessment.

Milestones:

	Project Milestone / Significant Event	Anticipated Start Date	Anticipated End Date	Estimated Cost
1	Task 1 – Land-based testing of at least three (3) promising or IMO-approved technologies	Date of receipt of funds	24 months from receipt of funds	\$1,000,000

¹ See, *Principals of Appropriations Law*, v. III, p. 12-27.

2	Task 2 – No less than four (4) bench-scale tests of promising treatment methods	Date of receipt of funds	24 months from receipt of funds	\$1,000,000
3	Task 3 – Refinement of Great Lakes shipboard testing methods during underway tests	Date of receipt of funds	12 months from receipt of funds	\$400,000
				\$2,400,000

Great Lakes Action Plan Measure of Progress:

- **Long Term Goal 1** – The introduction of new invasive species (via ballast water) to the Great Lakes basin ecosystem is virtually eliminated, reflecting a “zero tolerance policy” toward ANS.
- **Objective:** Ten (10) technologies that prevent the introduction of invasive species and five (5) technologies that either contain or control invasive species will be developed or refined and piloted by 2014.
- **Measure of Progress 1:** Number of non-native species newly detected in the Great Lakes Ecosystem in 2012 decreases from a baseline level of 1.3 species/year to 1.0 species/year. This can be quantified in the future after the project work has been verified and led to the installation of effective treatment systems on Great Lakes ships (in freshwater conditions unique to the Great Lakes).

This task will **verify** at least **four (4)** ballast water treatment approaches at the **bench scale**, as a necessary step to the development of full-scale ballast water treatment systems that are protective of freshwater ecosystems. This task will also **verify** the performance of at least **three (3)** ballast water treatment technologies **using a land-based facility**, and verify that the performance is protective of freshwater ecosystems as a necessary step prior to full-scale installation of ballast water treatment systems. These tasks are necessary components of a suite of efforts needed to reduce the rate of non-native species invading the Great Lakes from the ballast water vector.

FY12 SOW remains consistent with FY10 and FY11 SOWs.

Period of Performance: Extend current IAA to December 31, 2014 (with the assumption funds are available by June 1, 2012)

Title: Monitoring Ballast Water Discharge (Template #2012-003)

Funding: \$46,927

Authority: 31 U.S.C. § 1535(a) (3): MARAD is in a position to supply the services required.² 46 U.S.C. § 50105(a): MARAD is legally authorized to investigate new types of equipment for vessels. 46 U.S.C. § 50101: MARAD is legally authorized to aid the development of the U.S. merchant marine.

² See, *Principals of Appropriations Law*, v. III, p. 12-27.

Work: MARAD proposes to complete the evaluation in-line discharge monitoring systems that are consistent with IMO/USCG guidelines on ships that ply the Great Lakes. The project will enhance work already initiated with MARAD funds through the Great Ships Initiative, and through the USCG and Naval Research Lab.

Milestones:

	Project Milestone / Significant Event	Anticipated Start Date	Anticipated End Date	Estimated Cost
1	Task 1 – Conduct analyses of data related to pitot arrangement for collection of samples	Date of receipt of funds	18 months from receipt of funds	\$46,927
				\$46,927

Great Lakes Action Plan Measure of Progress:

- **Long Term Goal 1** – The introduction of new invasive species (via ballast water) to the Great Lakes basin ecosystem is virtually eliminated, reflecting a “zero tolerance policy” toward ANS.
- **Objective:** Ten (10) technologies that prevent the introduction of invasive species and five (5) technologies that either contain or control invasive species will be developed or refined and piloted by 2014.
- **Measure of Progress 1:** Number of non-native species newly detected in the Great Lakes Ecosystem in 2012 decreases from a baseline of 1.3 species/year to 1.0 species/year. This can be quantified in the future after the project work has been verified and led to the installation of effective treatment systems on Great Lakes ships (in freshwater conditions unique to the Great Lakes).

This task will **improve data collection** required for monitoring the **real-time performance of ballast water treatment technologies** (it is about improving collection of samples that will then be analyzed). This task will help ensure that treatment technologies continue to perform at expected levels during use, helping to reduce the rate of non-native species invading the Great Lakes from the ballast water vector.

FY12 SOW remains consistent with FY10 and FY11 SOWs.

Period of Performance: Extend current IAA to December 31, 2014 (with the assumption funds are available by June 1, 2012)

4. COLLABORATIVE ARRANGEMENTS

Work through this IAA is highly collaborative. GSI works closely with other US BWTS testing facilities, and coordinates regularly with other facilities globally, on testing methods and results. GSI also works closely with state, city, environmental and shipping interests in the Great Lakes

region to assure that GSI testing addresses the needs of these important stakeholders. GSI routinely attends federal interagency meetings on testing methods development and review. Finally, GSI leverages research talent from several regional universities and has a formally executed Cooperative Agreement with MARAD.

5. FUNDING SUMMARY SPREADSHEET

Provided as a separate attachment.

Great Lakes Restoration Initiative
Project Funding Summary Spreadsheet
FY XX
(\$000)

7/5/2012

USDOT MARAD GLRI FY2012 IAA Modification														
GREY AREAS WILL AUTOMATICALLY CALCULATE TOTALS														
Focus Area 1: Toxic Substances and Areas of Concern														
Template Number	Template Name	Personnel	Fringe Benefits	Travel	Equipment	Other	Grants	Contracts	Procurement/ Assistance	Sub-Total	Indirect Cost	Total	Indirect Cost Rates	
									\$0	\$0		\$0	#DIV/0!	
									\$0	\$0		\$0	#DIV/0!	
	Sub-total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	
Focus Area 2: Invasive Species														
Template Number	Template Name	Personnel	Fringe Benefits	Travel	Equipment	Other	Grants	Contracts	Procurement/ Assistance	Sub-Total	Indirect Cost	Total	Indirect Cost Rates	
2012-002	Verification of Ballast Water Treatment System Performance			\$16,000					2,384,000	\$2,400,000		\$2,400,000	0.00%	
2012-003	Monitoring Ballast Water Discharge								\$46,927	\$46,927		\$46,927	0.00%	
									\$0	\$0		\$0	#DIV/0!	
	Sub-total	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$2,430,927	\$2,446,927	\$0	\$2,446,927	0%	
Focus Area 3: Habitat and Wildlife Protection														
Template Number	Template Name	Personnel	Fringe Benefits	Travel	Equipment	Other	Grants	Contracts	Procurement/ Assistance	Sub-Total	Indirect Cost	Total	Indirect Cost Rates	
									\$0	\$0		\$0	#DIV/0!	
									\$0	\$0		\$0	#DIV/0!	
	Sub-total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	
Focus Area 4: Nearshore Health and Nonpoint Source Pollution														
Template Number	Template Name	Personnel	Fringe Benefits	Travel	Equipment	Other	Grants	Contracts	Procurement/ Assistance	Sub-Total	Indirect Cost	Total	Indirect Cost Rates	
									\$0	\$0		\$0	#DIV/0!	
									\$0	\$0		\$0	#DIV/0!	
	Sub-total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	
Focus Area 5: Accountability, Education, Monitoring, Evaluation, Communication and Partnership														
Template Number	Template Name	Personnel	Fringe Benefits	Travel	Equipment	Other	Grants	Contracts	Procurement/ Assistance	Sub-Total	Indirect Cost	Total	Indirect Cost Rates	
									\$0	\$0		\$0	#DIV/0!	
									\$0	\$0		\$0	#DIV/0!	
	Sub-total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	
	AWARD TOTAL	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$2,430,927	\$2,446,927	\$0	\$2,446,927		

